# Welcome to the CWNS Web Seminar Series

#### Seminar Logistics / Ground Rules

Call in number is 1-866-814-8399 (press \*0 on your phone to reach an operator).

All participants phones will be muted for this presentation.

A question can be asked at anytime by typing it in the question box.

This training is being recorded.

#### Clean Watersheds Needs Survey (CWNS) 2008



### Documenting Stormwater Needs

Presenters:

Nikos Singelis, US EPA Katherine Telleen, ORISE Karen Fligger, US EPA

### Overview

- What is CWNS
- What is Stormwater
- Top Six Reasons to Participate in CWNS
- Documenting Stormwater Needs
- Collecting and Entering Stormwater Data
- CWNS 2004 Lessons Learned
- CWNS 2008 Data Entry System
- Resources

- 1. The needs are underreported
- 2. Assists Congress and state legislatures to develop budgets and set policy
- 3. Tool to collect data for programmatic planning purposes at the state and national level
- 4. Informs the public and contributes to academic research
- 5. Provide documentation needed to apply for State Revolving Fund (SRF) money
- Tool for municipal stormwater planning and reporting

- Assessment of capital needs to meet the Clean Water Act's (CWA) water quality goals
- Need: A capital project, with associated costs, that addresses a water quality or water-related public health problem
- Joint effort by EPA, States, & Local organizations
- Every 4 years as required by CWA Sec 516 (started in 1972)
- Results in Report to Congress

#### Survey

States submit needs data from Jan.- Oct. 2008

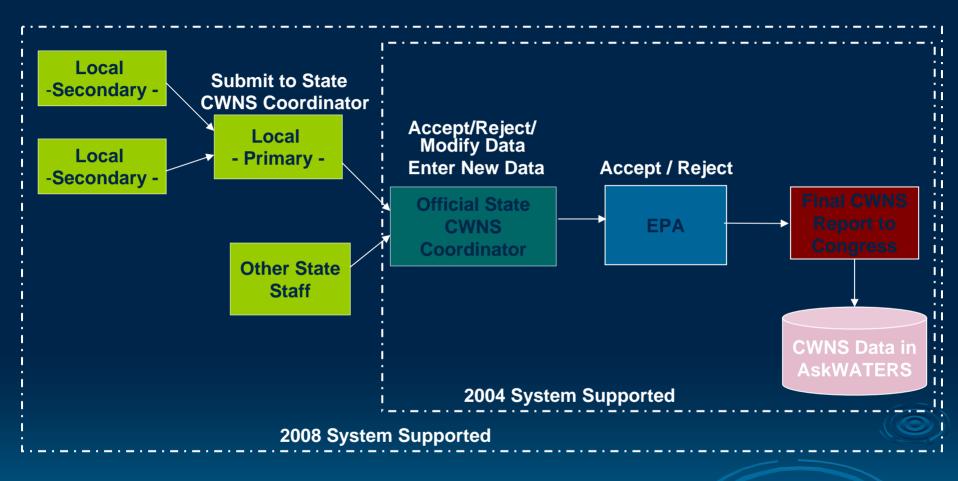


#### **Report to Congress**

EPA uses survey to complete Report to Congress. Congress uses report to inform policy and SRF allocations.



Survey data becomes publicly available



### What data is collected?

- Includes information about:
  - Publicly owned wastewater facilities
  - Stormwater management projects
  - Combined sewer overflow (CSO) control
  - Non-point source pollution control projects (including onsite/ decentralized treatment)
  - Estuary Management projects

#### What data is collected?

- Information collected includes:
  - Estimated needs (cost and technical information)
  - Location and contact information
  - Permit information and discharge data
  - Solution to the project/ best management practices (BMPs)
  - WWT facility population served, flow, effluent, and unit process data

# Questions

Questions can be asked at anytime by typing them in the question box.

# What is Stormwater

#### What is an MS4?

- A municipal separate storm sewer system (MS4) is:
- A conveyance or system of conveyances... owned by a state, city, town, or other public entity that discharges to waters of the U.S. and is:
  - designed or used for collecting or conveying stormwater
  - not a combined sewer
  - not part of a Publicly Owned Treatment Works (POTW)



### Phase I Coverage

- Covers municipalities with populations over 100,000
- Many interconnected small MS4s also permitted
- Approximately 275 permits covering 1,000 MS4s have been issued



### Phase II Coverage

- Covers more than 5,000 smaller MS4s in "urbanized areas"
- Urbanized areas based on decennial census
- Permitting authorities can also designate additional small MS4s that are outside of urbanized areas
- Includes non-traditional MS4s



### Urbanized Areas (UA) in U.S.



- 464 UAs
- 6,000+ Communities
- 197 million people
- 70% of the population
- 2% of the land area

### Unregulated MS4s

- Outside urbanized areas (UAs)
- Not designated by the permitting authority (state or EPA)

# Point Source vs. Non-Point Sources

- Stormwater has expanded the definition of "point source"
- Some stormwater remains covered as "non-point source"
  - Agricultural
  - Small MS4s outside urbanized areas

### Six Minimum Measures

- Public Education and Outreach
- Public Involvement and Participation
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control
- Post-Construction Storm Water Management for New and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations



# Types of Stormwater Needs for CWNS

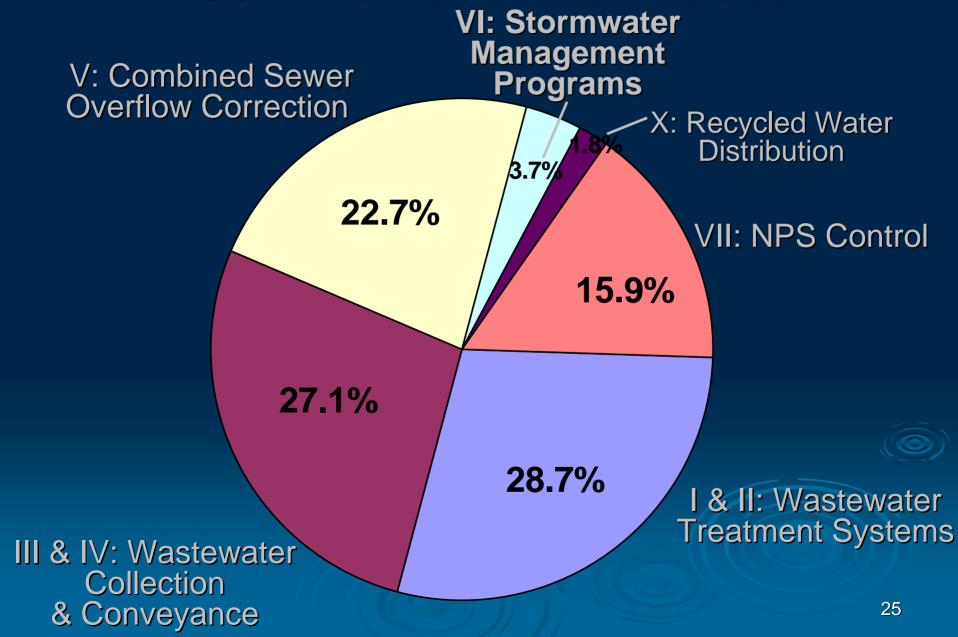
- Traditional Conveyance
  - Pipes, inlets, road side ditches
- Traditional Treatment
  - Wet ponds, dry ponds, manufactured devices
- Green Infrastructure/ LID
  - Bioretention, constructed wetlands, permeable pavement, rain gardens, etc
- General Stormwater Management
  - Planning, GIS systems, tracking systems, education, equipment (street sweepers)

# Questions

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1. The needs are underreported.

#### 2004 Distribution of Needs



- 1. The needs are underreported
- 2. Assists Congress and state legislatures to develop budgets and set policy

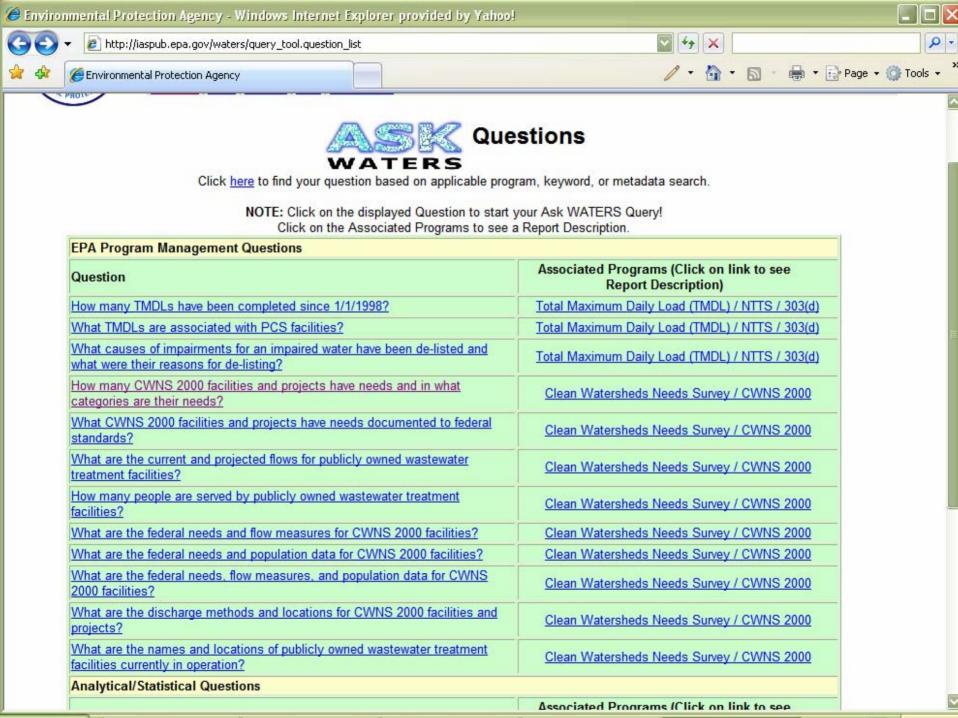
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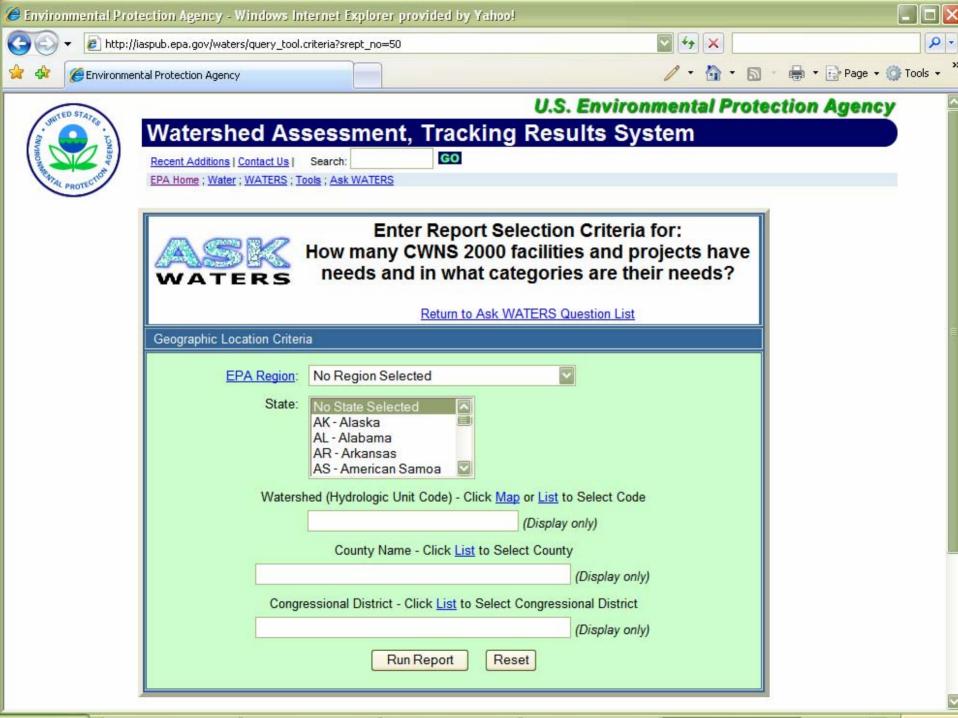
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### How is CWNS data available?

- Report to Congress
- Ask WATERS allows data to be queried on various scales:
  - National
  - State
  - County
  - Watershed
  - Congressional District
  - Facility/ Project

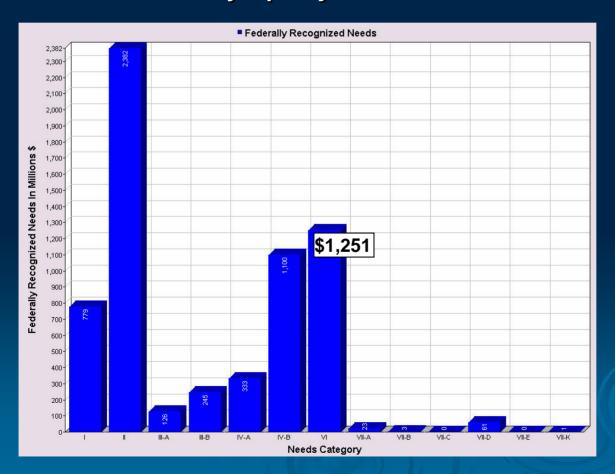
http://www.epa.gov/waters/tools/ask\_waters/index.html





# Ask WATERS Results (AZ)

- Tables, charts, graphs
- Links to facility/ project factsheets and maps



#### Category Legend

I Secondary Wastewater Treatment II Advanced Treatment III-A Infiltrate/Inflow Correction III-B Replace/Rehab of Sewers IV-A New Collector Sewers IV-B New Interceptor Sewers V Combined Sewer Overflow VI Stormwater Management VII-A NPS-Agriculture (cropland) VII-B NPS-Agriculture (animals) VII-C NPS-Silviculture VII-D NPS-Urban VII-E NPS-Ground Water Unknown Source VII-F NPS-Marinas VII-G NPS-Resource Extraction VII-H NPS-Brownfield VII-I NPS-Storage Tanks VII-J NPS-Sanitary Landfills VII-K NPS-Hydromodification VIII Confined Animals (Point Source) IX Mining (Point Source)

- 1. The needs are underreported
- 2. Assists Congress and state legislatures to develop budgets and set policy
- 3. Tool to collect data for programmatic planning purposes at the state and national level
- 4. Informs the public and contributes to academic research
- 5. Provides documentation needed to apply for funding, including SRF loans

#### What can be funded with the SRF?

- Phase I or Phase II NPDES communities: SRF funds publicly owned stormwater projects specified in permit and publicly and privately owned projects not required by permit.
- Unregulated communities: SRF funds publicly and privately owned stormwater projects.

### Examples of project eligible for SRF funding

- System rehabilitation
- New collector sewers
- New interceptors
- Storm sewer rehabilitation
- Infiltration/inflow correction
- Sediment traps and basins
- Constructed wetlands
- Street sweepers
- Catch basin vacuum vehicles
- Riparian buffers

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- 5. Provide documentation needed to apply for State Revolving Fund (SRF) money
- 6. Tool for municipal stormwater planning and reporting

# Questions

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# Collecting and Entering Stormwater Data

# Eligibility

- To be eligible for CWNS, needs must be:
  - Capital costs
  - Fall within CWNS categories
  - Meet CWNS documentation criteria

No longer limited to SRF eligibility criteria.

# Category VI: Stormwater Management Program Needs

- Activities to plan and implement municipal stormwater programs in:
  - Phase I communities
  - Phase II communities
  - Non-traditional MS4s (e.g. universities, prisons, school districts, DOT)
  - Unregulated areas (previously VII-D)

# Changes for 2008

- All stormwater data is collected/ reported in category VI: Stormwater Treatment System Needs
  - Now includes unregulated communities (formerly category VII-D-Urban NPS)
- Projects with integrated water quality and water quantity benefits are permitted.
- Four new sub-categories
- Need to identify whether or not the needed projects activities are specifically required by a NPDES permit

Stormwater Project Area?					
☐ Phase I	☐ Phase II				
□ Non-traditional (I & II)	☐ Unregulated				
Specifically required by NPDES permit?					
☐ Yes	□ No				
Needs by sub-categories		\$ Amount			
VI-A-Traditional Conveyance					
VI-B- Traditional Treatment					
VI-C- Green Infrastructure/ LID					
VI-D- General Stormwater Management					

# Seven Criteria for Documenting Needs and Costs

 Description of the water quality or public health problem

Needs

- 2. Location of the problem
- 3. Solution to the problem
- 4. Cost of the solution
- 5. Basis for the cost
- 6. Total cost
- 7. Current Documentation

Costs

# 1. Description of the water quality or public health problem

- Municipal Stormwater Management Plan
- Impaired Water/TMDL Listing
- TMDL
- State-approved Area-Wide or Regional Basin
   Plan
- Watershed-based plans
- CWSRF and other loan & grant applications
- Intended Use Plan

# 2. Location of the problem

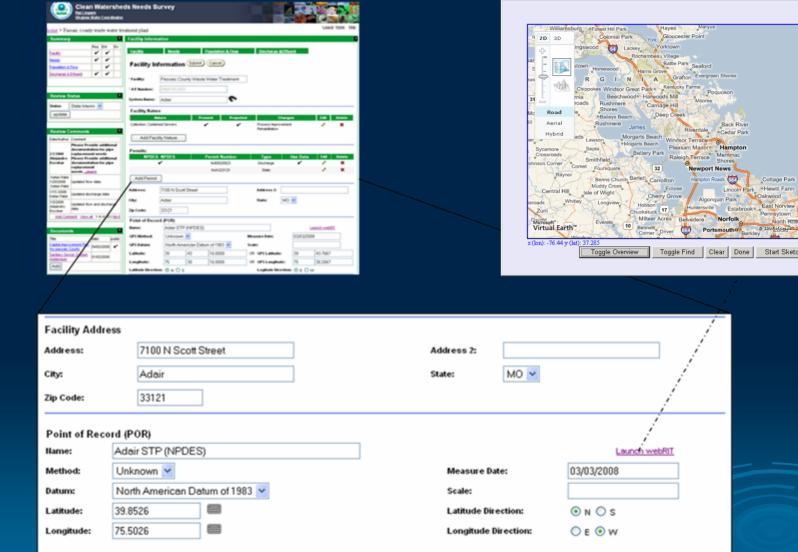
 Provide a polygon outlining the area where the stormwater needs are located

<u>or</u>

 If the stormwater plan is municipality-wide, indicate the name of the municipality.

# Integration with WATERS Light Viewer

🎒 -- Web Page Dialog



Cape Charles Culls

Capev

Cedar Grov

Bay Island

# Point/Line/Polygon Capture



# 3. Solution(s) to the problem

- VI-A: Traditional Conveyance
  - Pipes, inlets, road side ditches
- VI-B: Traditional Treatment
  - Wet ponds, dry ponds, manufactured devices
- VI-C: Green Infrastructure/ LID
  - Bioretention, constructed wetlands, permeable pavement, rain gardens, etc
- VI-D: General Stormwater Management
  - Planning, GIS systems, tracking systems, education, equipment (street sweepers)

#### Menu of BMPs

- Provides factsheets illustrating ways municipalities can meet six minimum control measures
- Hundreds of fact sheets covering:
  - Public outreach
  - Public participation
  - Illicit Discharge
  - Construction
  - Post-construction
  - Municipal operations
- www.epa.gov/npdes/stormwater/menuofbmps





Menu of BMPs Home

BMP Background

Public Education & Outreach on Stormwater Impacts

Public Involvement/ Participation

Illicit Discharge Detection & Flimination

Construction Site Stormwater Runoff Control

Post-Construction Stormwater Management in New Development & Redevelopment

Pollution Prevention/Good Housekeeping for **Municipal Operations** 

Measurable Goals

#### **U.S. Environmental Protection Agency**

#### National Pollutant Discharge Elimination System (NPDES)

Recent Additions | Contact Us | Print Version | Search NPDES: EPA Home > OW Home > OV/M Home > NPDES Home > Stormwater > Menu of BMPs

NPDES Topics	Alphabetical Inde	ex	Glossary		About NPDES
Search BMPs			Minimum Measure		e Fact Sheets Search Help
	All of the words	All	<b>Y</b>	do bioms	e ract Sheets Search help



#### National Menu of Stormwater Best Management Practices

The National Menu of Best Management Practices for Stormwater Phase II was first released in October 2000. EPA has renamed, reorganized, updated, and enhanced the features of the website. These revisions include the addition of new fact sheets and revisions of existing fact sheets. Because the field of stormwater is constantly changing, EPA expects to update this menu as new information and technologies become available. Therefore EPA invites you to submit comments on the existing fact sheets and suggest additional fact sheet subjects (click on the comment button at the top or bottom of each website).

The Menu of BMPs is based on the Stormwater Phase II Rule's six minimum control. measures. Click on the minimum control measure below to see the Phase II requirements for that minimum measure and for the BMPs that can be used to implement it. You can also perform a general search for keywords using the search menu above. For information on problems associated with stormwater, general BMP information, and the stormwater Phase II rule, go to background information.

- Public Education BMPs for MS4s to inform individuals and households about ways to reduce stormwater pollution.
- 2. Public Involvement BMPs for MS4s to involve the public in the development, implementation, and review of an MS4's



#### 4. The cost for each solution

- The cost to implement the BMPs
- Cannot include O & M costs in needs

#### 5. The basis of the cost

- The source of the cost data, for example:
  - Cost of Previous Comparable Construction
  - Loan and grant applications
  - Intended Use Plan
  - State-Approved Area-wide or Regional Basin Plan
  - State-Approved Local Comprehensive Water and Sewer Plan
  - Capital Improvement Plan

### State or Federal Grant Application

- Ex: Milwaukee County Parks Department
- Budget section provided cost information for:
  - Urban planning project
    - Planning
  - Construction projects
    - Design
    - Clearing
    - Grading
    - Grade on-site access road
    - Grade channel and remove material

### Costs from comparable practices

- Cost must be based on at least 3 bid or completed projects that are:
  - Recent: within the last two years.
  - Similar in size, scope, and geographic area.
  - Size: plus or minus 25 percent.
  - Generally in the same county or watershed.
- Must be pre-approved by your EPA region and EPA headquarters

## Example from 2004

- Minnesota established a per-acre stormwater rate according to the Capital Improvement Plans (CIPs) of 10 representative communities.
- Communities provided stormwater management needs and budgets.
- Developed average annual per acre rate for stormwater management
- Applied to the all MS4 communities
- MN recommendation: "A significant improvement would be to conduct a statewide survey of stormwater costs."

# Capital Budget and Capital Improvement Program

- Ex: Madison, WI
  - Greenway Improvements for drainage improvement – VI-C green infrastructure
  - Stormwater basins VI-B traditional treatment
  - Street cleaning equipment VI-D general stormwater program implementation

#### 6. The total cost

 The total cost of all stormwater needs documented for the area (e.g., county, watershed) must be provided.

#### 7. Current Documentation

- Point Source Needs:
  - ≥\$20 Million: January 1, 2002.
  - <\$20 Million: January 1, 1998.</p>

- Non-point Source and Stormwater Needs:
  - >\$20 Million: January 1, 1998.
  - <\$20 Million: January 1, 1994.</li>

# Questions

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# CWNS 2004 Lessons Learned

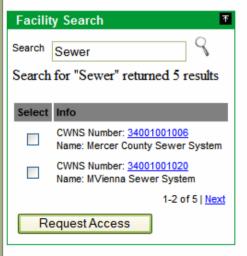
#### Lessons Learned in 2004

- Communication is key
  - Between state agencies
  - Between state and local agencies
  - Between states and EPA
- Contact EPA as you are developing your methodology.
  - EPA will provide methodology review at states request from June-December 2007.
  - http://www.epa.gov/cwns/method.htm

# CWNS 2008 Data Entry System

# Local Home Page





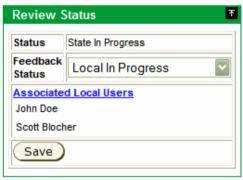
Document Management

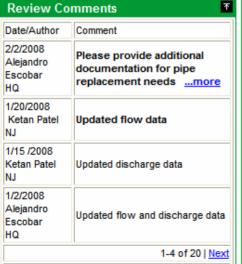
State CWNS coordinator can provide state stormwater coordinator or municipality access to stormwater project(s).

#### Local Feedback Sheet

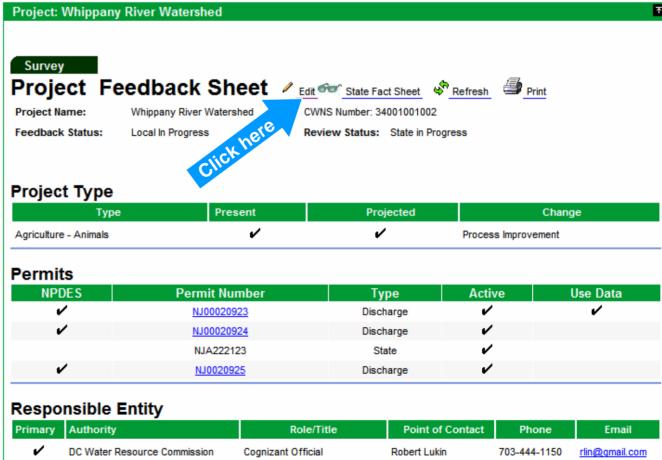


Logout Home Help



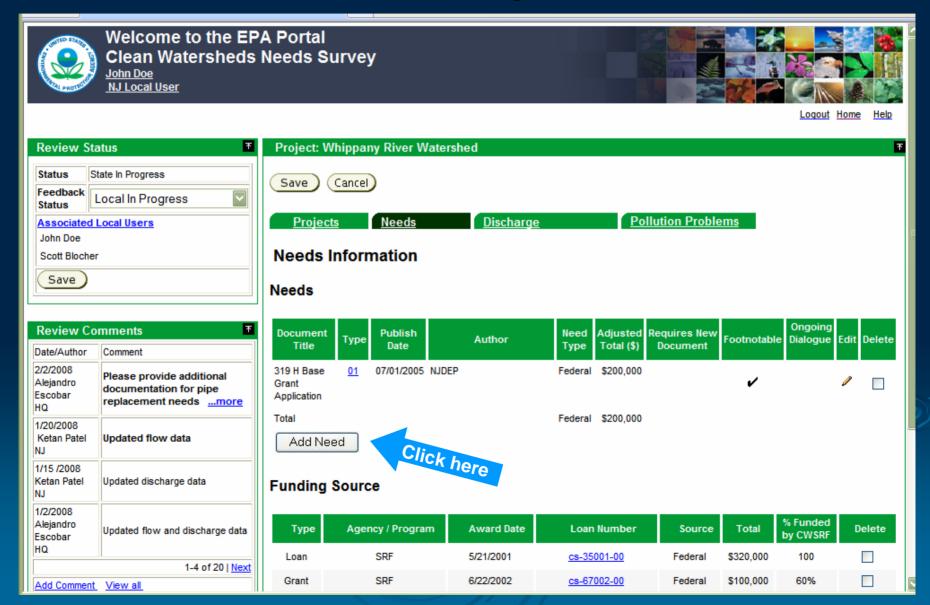


Add Comment View all

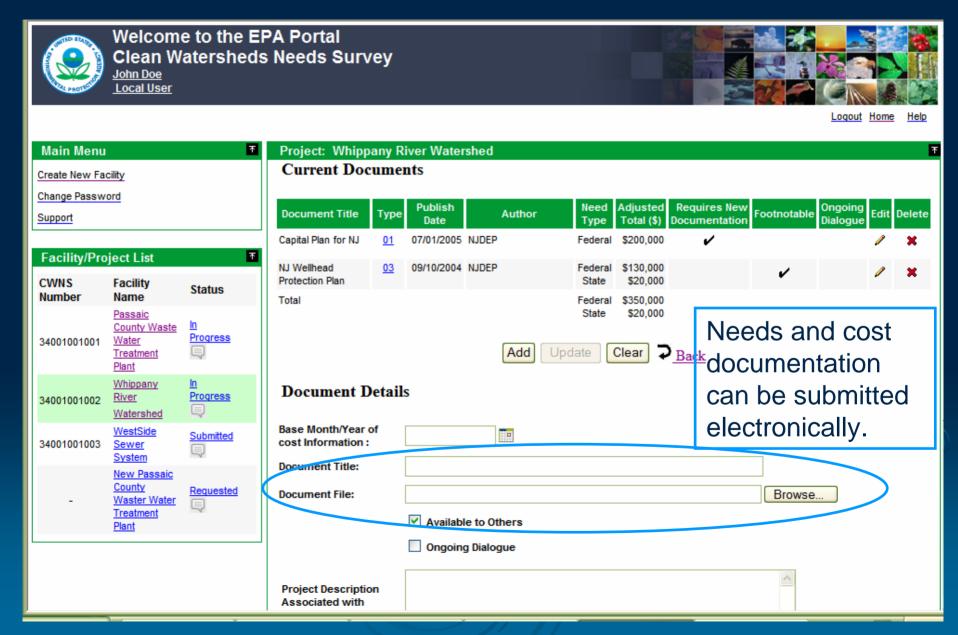


#### **Needs Data**

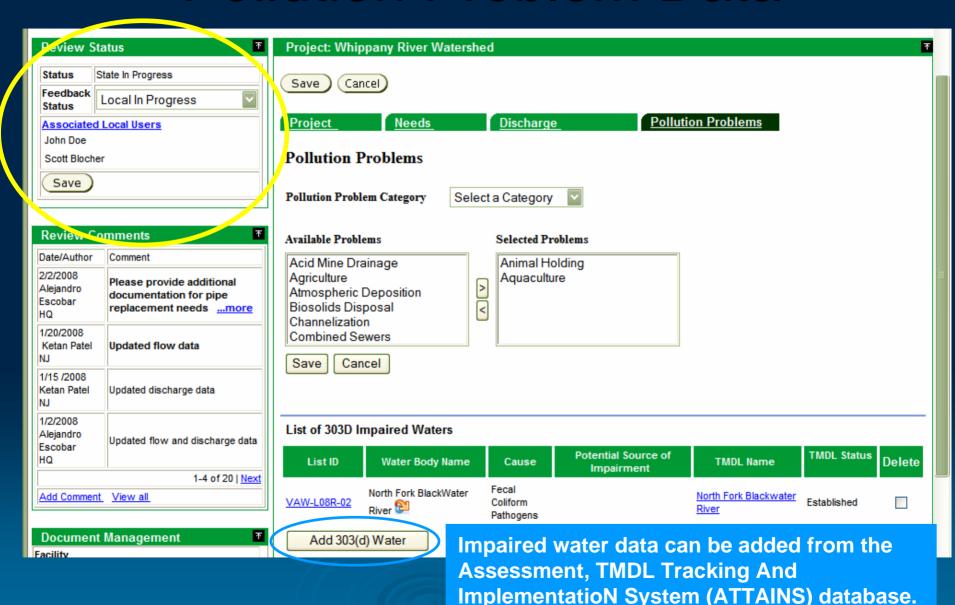
#### Needs, Funding Source



#### **Needs Data**



#### Pollution Problem Data



# Resources

# Important Dates

- August 2007-November 2007:
  - Web seminars about the new documentation rules and review processes.
  - Program specific data collection and submission guidance materials available
  - Stormwater Web seminar in October or November.
- June-December, 2007: EPA will conduct pre-survey review of State's needs documentation methodologies.
- January 16-18, 2008: CWNS 2008 Kickoff Meeting for state coordinators
- January 22–October 27, 2008: Official CWNS 2008 data entry period
  - Video training modules available for all CWNS system users.

#### **News and Contacts**

- NPDES News Sign up at <u>www.epa.gov/npdes</u>
- NPS-Stormwater Listserve email to lyris@lists.epa.gov with: subscribe NPSINFO [your first name] [your last name] in the subject or body
- Nikos Singelis
   EPA Office of Water
   singelis.nikos@epa.gov
   202-564-0692

### Stormwater Resources & Tools

- EPA Stormwater Website (www.epa.gov/npdes/stormwater)
- Menu of Best Management Practices (BMPs)
- Measurable Goals Guidance
- Urbanized Area Maps
- Outreach Materials (Stormwater Month)

### http://www.epa.gov/cwns

- List of CWNS state & regional coordinators (Where You Live)
- News about CWNS 2008
  - Web seminar schedule, "Questions and Answers," and links to recorded sessions
  - Resources (including Decentralized Best Practices Guide)
  - Links to contact information for state & regional NPS,
     Onsite, and Stormwater Coordinators
- Access to CWNS data and Reports to Congress

#### Contacts & More Information

Michael Plastino, US EPA 202-564-0682 or <u>plastino.michael@epa.gov</u>

Karen Fligger, US EPA 202-564-2992 or <u>fligger.karen@epa.gov</u>

Sign up for CWNS updates by emailing <a href="mailto:cwns@epa.gov">cwns@epa.gov</a>.

# Questions

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